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ESTIMATING SYSTEM BIASES: CRIME INDICES THAT PERMIT COMPARISON ACROSS PROVINCES

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DISCUSSION PAPER 12

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ABSTRACT

Crime statistics in Canada show an East-West differential: the Maritimes tend to have relatively low rates while the West has relatively high rates. Usually, Quebec displays rates that are somewhat lower than Ontario. These patterns persist for violent as well as property crimes, although there are exceptions from time to time.

The general public assumes that these statistics reflect differences in the behaviour of criminals, but others are aware that these figures also reflect characteristics of the systems that produce these statistics. Despite attempts to standardize data gathering procedures, differences from province to province and city to city persist. This paper will focus on some characteristics of the data being produced in certain jurisdictions and suggest that some of these system characteristics can have a significant impact on the interpretation of crime statistics.

Crime Patterns in Canada

For a number of years crime statistics in Canada have shown an East-West differential with the Maritimes having relatively low rates while the West has relatively high rates. Quebec usually displays rates that are somewhat lower than Ontario. These patterns persist for violent as well as property crimes, although there are exceptions from time to time.

The general public assumes that these statistics reflect differences in the behaviour of criminals. Thus, when crime statistics are released each year journalists call the universities and ask criminologists to explain why certain cities or provinces have so much crime. It is difficult to explain in a few moments that system characteristics influence the way the data are gathered in each community. These may or may not be a product of the behavior of criminals. Those who work with criminal statistics are aware that these figures reflect characteristics of the systems, but despite attempts to standardize data gathering procedures, differences from province to province and city to city persist. Frequently, these differences are treated as errors to be reduced. Instead of treating these differences as errors, one could utilize them as a means of explaining the way the system works. While users of criminal statistics have been aware of these systematic differences for some time, there has been little effort made to ask what these data mean with the hope that they might *explain* some of the dynamics of criminal justice in different areas. In this paper, we will review a few of the studies that illustrate the impact of system characteristics on crime statistics. Then we will consider how the data might be used to help understand the screening practices of different police forces.

Past Studies

During the 1960's and 1970's some scholars argued that crime rates could be a product of differing definitions of deviant behaviour (Kitsuse and Cicourel, 1963). This represented a shift in focus from earlier theorists who attempted to use crime statistics to explain criminal behaviour. These earlier theorists attempted to determine biological, psychological and socio-cultural factors which produced individuals with a disposition to commit crimes. In contrast, labelling theorists argued that official statistics revealed information about the police and courts, and who they select for their attention to be processed through the criminal justice system. Arrest, charge and conviction was part of a labelling process in which individuals received the "criminal" label, and

this labelling would eventually mold future deviant behaviour. The dynamics of the labelling process, unfortunately, were not as straightforward as one might imagine. For example, one might argue that the police discriminate against minority offenders since they are overrepresented in the criminal justice system. However, an American study revealed that most police–juvenile contacts were initiated by citizens and that black complainants were more inclined to insist on arrests (Black, 1970). Evidence was lacking of a police bias, but pressure from complainants plus the tendency of black juveniles to show less respect to police authority increased their arrest rates.

The role of the complainants and victims are important determinants in police work. In cases where the victim and/or complainant fail to cooperate, the police may find themselves unable or unwilling to press charges since such cases are unlikely to lead to successful prosecutions in court. As a result the police are highly dependent upon the cooperation of the public for reports of criminal events. Obviously, not all cases of victimization are reported to the police. Based on a recent victimization study by the Solicitor General (1986), 58% of victims failed to report crimes to the police. Once an incident of crime is reported, it may or may not become a statistic depending on police discretion. The police decide whether the case is serious enough to be recorded and pursued.

Due to misunderstandings of the proper definition of a crime, complainants can also exert pressure on the police on how certain incidents are to be classified (McCleary, Neinstedt and Erven, 1982). For example, in the United States, burglary requires that the offender enter a building; if a thief breaks a fence or takes something from a patio, it should not be classified by the police officer as a burglary. On the other hand, an irate citizen may believe he was burglarized, and the police officer may go along with the definition of the victim.

Even though there are standardized rules on how crimes are to be recorded, local police departments do not always adhere to these procedures. For example, UCR rules specify that if a single criminal incident contains a number of violations, only the most serious offense is to be recorded. This practice tends to underestimate the total amount of crime that comes to the attention of the police. As long as this practice is done uniformly, comparisons from one municipality to another are appropriate. The Toronto Metropolitan Police Force does not apply this rule when reporting crime. Therefore, comparing data from the Toronto Police Force with other police forces is questionable.

Crime statistics are also sensitive to the discretion exercised by police officers as the result of political pressures (Pepinsky, 1976; Seidman and Couzens, 1974). A police chief or mayor can "wish" crime rates down by rewarding line personnel who "produce" low crime rates. New York City provided an excellent illustration of a system that produced unrealisticly low crime rates (New York City, 1952). Similarly, Seidman and Couzens (1974) found that significant decreases in burglary and larceny over $50.00 could be traced to changes in recording practices in response to a new police chief who pressured officers to reduce the crime rate. An awareness of such practices puts us on the alert when statistics are used to assess the impact of a new program. For example, McCleary and his colleagues (1982) found that certain practices tended to increase burglary rates; but when an experimental program was introduced increasing the use of detectives, the burglary rate went down. What actually happened was that the intensive use of detectives reduced counting errors. Fewer cases were classified as burglaries.

At other times screening and coding practices of local public departments will influence the crime rates. Silverman (1977) studied the coding practices of Edmonton and Calgary. The two cities are very similar demographically, but according to official statistics, Edmonton has consistently had higher crime rates than Calgary. Silverman found that the differences in the recording and reporting of some minor crimes contributed somewhat to the differential rates. Calgary police were accorded more discretion in settling disputes on the streets than Edmonton police. Many minor crimes in Calgary were not reported by the police while in Edmonton such minor crimes were more likely to be recorded and forwarded to Statistics Canada. While the amount of crime in the two cities is probably more similar than the official rates would indicate, major differences remain without an adequate explanation.

This paper does not focus on any particular bias. Each local system will experience pressure or will develop practices which may have a systematic influence on official data. Even if the dynamics behind these influences cannot be determined, the *nature* of that influence may be identified. In this paper we will focus on the tendency of reporting units to screen out certain types of offenses. If, for example, minor shoplifting by juveniles does not lead to criminal charges, these common crimes would reduce the total property crime rate considerably. Similarly, fights in bars in small towns may or may not lead to criminal charges. This could have a significant impact on violent crime rates. There is nothing wrong or right about these strategies. One can argue for either

procedure, and this paper has no intention of favoring one or the other. However, one cannot compare total property or total violent crime rates from area to area as long as these differences are very large. Being aware of such system differences enables us to understand official statistics and make comparisons in a more meaningful manner.

The Constructive Use of System Differences

One response to studies that point out weaknesses in crime statistics has been to question their utility for research. Some have argued that crime statistics are quite useless. Others claim that individuals who get classified as criminal are in fact more criminal (Nettler, 1982). We cannot deny the importance of official data for testing theories of individual offenders, but our chief focus will not be on the behaviour of offenders. Stan Wheeler argues that it would be wiser to conceive of crime rates as involving three elements: the offender, citizens who are victims or reporters of the acts, and officers of the law who respond (1967). Thus, we might expect a community with many older females to respond differently from other communities. Police forces with veteran officers would probably be different from those with many rookies. Instead of seeing resulting statistics as "errors" or "cheating", we might profitably ask if they can help us to explain the ways systems deal with the community. Using Canadian statistics we will suggest some ways of analyzing data so that they might tell us how different police departments respond to certain types of crime.

In Table 1 we have a simple display of crime statistics for the provinces and territories. The traditional pattern in Canada is that crime rates are higher in Western Canada than in Central Canada with the Maritimes having lower rates than the rest of the country. The most dramatic difference is apparent in the Yukon and the Northwest Territories, which display a violent crime rate of four to five times the national average of 749 per 100,000. This trend also holds for property crimes with British Columbia, in this case, having a very similar property crime rate to the territories.

Table 1 also shows that violent crimes make up a small proportion of the total crime rate. In Canada, violent crimes have consistently been less than 8% of all crimes known to the police. Therefore, just looking at the total crime rate will not provide a meaningful picture of the crime problem in Canada if minor property offenses are handled differently in each jurisdiction. When crime rates

TABLE 1

Police Reported Crimes by Province - 1985
(Per 100,000 population)

Province	Crimes of Violence	Property Crime	Total Rate[1]
Newfoundland	609	2,895	7,351
P.E.I.	490	3,266	10,007
Nova Scotia	591	4,250	9,910
New Brunswick	545	3,591	8,600
Quebec	514	4,938	7,663
Ontario	742	5,161	10,543
Manitoba	994	7,187	13,186
Saskatchewan	805	7,125	14,318
Alberta	882	5,584	12,817
B.C.	1,136	8,432	15,376
Yukon	3,713	8,939	33,986
N.W.T.	4,288	9,686	37,202

[1] excluding traffic offenses.

Source: Statistics Canada, Canadian Crime Statistics 1985, Catalogue 85-205 Annual, Table 2.

are released by Statistics Canada, the typical question asked by the public is: Why are more crimes committed in the West and in the territories? The general public rarely asks: Why do the *police* lay more charges in the West and in the territories?

To explore the possibility that jurisdictions operate differently, let us look at some characteristics of the information that go into statistics on violent crime. Violent crime statistics are heavily influenced by assaults. In 1985, 85% of all violent crime in Canada were assaults. In addition, many minor assaults are potentially more "screenable" than more serious violent crime. That is, a fist fight might lead to an assault charge in one jurisdiction while nothing is reported in another. Thus, a police force which does more screening at this level has a lower overall violent crime rate. It is important to note that we are not interested in which strategy is "better." Whether one gains or loses by screening or charging is debatable, and the police can make good arguments for either strategy. However, researchers might be able to assist policymakers by demonstrating the impact of different practices on the patterns that exist in different areas.

A Processing Index for Violent Crime

Since we are aware of different practices across Canada, is there some way of viewing certain crime statistics so that tendencies in different systems become more visible? First, it can be argued that police forces may screen violent crimes differently than property crimes. Can we develop an index to reflect the tendency of police to screen less serious cases out of the system? In Table 2 we have selected homicide and robbery rates from all the provinces. The first column shows the total violent crime rate. We are aware that this is heavily influenced by minor assaults. On the other hand, homicides are not as "screenable" as minor assaults; hence we would assume that the homicide rates in the second column are a better indication of actual behaviour. [1] Similarly, robberies are hard to overlook. In column 3 we separate out robberies where firearms were used. Since firearms are more lethal than most other weapons, one might think of such robberies as being more potentially violent than robberies where no firearms are used.

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[1] Homicide includes the criminal code offences of murder, manslaughter and infanticide. Offences that are legally defined as criminal negligence causing death are not included in the classification of homicide.

TABLE 2

Violent Crime Rates by Province - 1985
(Per 100,000 Population)

Province	Crimes of Violence	Homicide	ROBBERY	
			Firearms	Other Weapons
Newfoundland	609	1	4	3
Prince Edward Island	490	1	2	6
Nova Scotia	591	3	6	9
New Brunswick	545	2	5	6
Quebec	514	3	68	36
Ontario	742	2	11	14
Manitoba	994	2	16	26
Saskatchewan	805	3	12	18
Alberta	882	3	11	18
British Columbia	1,136	4	22	29
Yukon	1,021	26	13	9
Northwest Territories	4,288	20	25	25

Source: Statistics Canada, Canadian Crime Statistics 1985, Catalogue No. 85-205 Annual, Table 2.

From Table 2 we see that Quebec, New Brunswick, Nova Scotia and P.E.I. come out on the low end for overall violent crime statistics and British Columbia is high. When we look at homicide, there is a similar trend with the rates increasing as one moves from the East to the West. In 1985 British Columbia was the only province to have a rate higher than the national average of 3 per 100,000 population.

A different picture emerges when we look at robbery, particularly with firearms. Quebec is the only province to have a rate higher than the national average of 27. In fact, Quebec has a rate of robbery with firearms about 3.1 times that of British Columbia. Normandeau and Billemare (1981) found that robberies are reported more often in Quebec, especially in Montreal than in any other major American or Canadian city. The difference is so great that variations in data collection have been discarded as a possible explanation. The column for robbery with other offensive weapons shows Quebec, British Columbia, Manitoba and the Northwest Territories with rates higher than the national average of 22. Which statistic (total violent crime rate, homicide, robbery, etc.) gives us the best indicator of actual violent criminal behaviour? It is difficult to say, but clearly the *total* crime rate is misleading. It seems that the Quebec police screen out more minor assaults on one hand; on the other hand they process more robberies than other parts of the country. We cannot be sure that robbery is a better index of violence than the total crime rate, but we should take into account the tendency of some areas to divert minor offenses which reduces the total crime rate.

Can we develop an index that reflects this tendency for police to screen? In Table 3 we look at the rates for robbery and assault by provinces and territories. Assaults will include serious crimes, but the bulk of the violent crime consists of less serious offenses and many of these offenses are "screenable". Robbery, on the other hand, tends to be more serious. If we divide the first column by the second we get a "processing index." That is, the higher the index, the greater the proportion of minor assault cases processed by that province. Systems with higher processing indices, such as Alberta, British Columbia and the territories would appear to have higher crime rates if one uses total crime

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Concern over this issue lead the Quebec Ministry of Justice to create a task force to investigate armed robbery. Although many recommendations were given, no satisfactory explanation could account for the high rate (Normandeau and Billemare, 1981).

TABLE 3

Crime Rates for Assault and Robbery by Province - 1985
(Per 100,000 Population)

Province	Assault Rate	Robbery Rate	Processing Index Assault/Robbery
Newfoundland	583	10	58.3
Prince Edward Island	469	11	42.6
Nova Scotia	542	31	17.5
New Brunswick	508	22	23.1
Quebec	335	160	2.1
Ontario	666	58	11.5
Manitoba	859	103	8.3
Saskatchewan	719	58	12.4
Alberta	767	66	11.6
British Columbia	1,003	109	9.2
Yukon	3,587	61	58.8
Northwest Territories	4,135	76	54.4

Source: Statistics Canada, Canadian Crime Statistics 1985, Catalogue No. 85-205 Annual, Table 2.

rates, but is this because the police cast a wider net or process a higher percentage of less serious violent crimes in their official data?

In Table 3 we can see that the "index" varies widely. Quebec is dramatically low, suggesting that the police process rather selectively. On the other hand, Newfoundland, Prince Edward Island and the territories have high processing indices. Obviously, one must be careful about the interpretation of these indices. The factors that lead to more or less selective processing by different police forces will not be uniform, but such an index may be useful in obtaining a measure of the police response to crime. Hackler and Paranjape (1984) classified Quebec as a "low reactive" system in terms of young offenders. It appeared that Quebec was less likely to process a large number of young offenders through the system as compared to other provinces. Informal discussions with police in Montreal suggested a tendency to deal with minor juvenile cases without the use of formal charges. Recently there has been some concern that the Young Offenders Act has led to more young people ending up in custody. The processing index seems to suggest that Quebec is handling both adult and young offenders in a similar manner. If the rest of Canada is putting excessive numbers of offenders in custody, it might be worthwhile examining strategies utilized by the Quebec police. They may be utilizing screening techniques that keep the criminal justice system free to work with more serious problems. While this may be an intelligent strategy, we should not assume these low total crime rates actually indicates low rates of delinquent behaviour in Quebec.

Table 3 also may help us to understand some of the data from the Yukon and the Northwest Territories. While assault rates are high, robbery rates are more similar to the other provinces. In fact, Quebec, Manitoba and British Columbia have higher robbery rates than the Yukon and the Northwest territories. Does the high processing index for these northern area suggest that laying charges for minor offenses is fairly routine? Which is a better indicator of genuinely dangerous behaviour, the assault rate or the robbery rate?

A Processing Index for Property Crimes

Can we make the same type of argument for property crime that we have just made for violent crime? When we look at the total property crime rate (table 4, column 1), we see that the general East–West pattern still prevails. However, when we look at the different types of property crimes, some

TABLE 4

1985 Selected Property Crime Rates by Province
(Per 100,000 Population)

Province	Total Property Crime	Theft Under $200.00	Stolen Property	Break and Enter	Auto Theft
Newfoundland	2,895	1,358	51	687	121
Prince Edward Island	3,266	1,411	21	866	218
Nova Scotia	4,250	1,840	39	914	176
New Brunswick	3,591	1,353	53	997	221
Quebec	4,938	1,328	35	1,589	403
Ontario	5,161	2,011	133	1,175	252
Manitoba	7,187	2,937	121	1,667	425
Saskatchewan	7,125	2,549	143	1,805	370
Alberta	5,584	2,209	127	1,173	342
British Columbia	8,432	3,316	117	2,047	411
Yukon	8,939	3,317	209	1,904	557
Northwest Territories	9,686	3,069	165	3,700	865

Source: Statistics Canada, Canadian Crime Statistics 1985, Catalogue No. 85-205, Annual, Table 2.

interesting findings are evident. For the less serious crimes, of theft under $200.00 and stolen property, the Maritimes and Quebec are consistently low; but for the more serious property offenses of break and enter and auto theft, Quebec displays rates similar to British Columbia, Saskatchewan and Manitoba. With the exception of auto theft, Alberta has rates very similar to Ontario. Since minor crimes such as petty theft and stolen property permit more police discretion than break and enter and auto theft, it can be argued that Quebec police are less likely to charge minor property offenders. Such discretion may or may not be possible if such crimes are more serious or if insurance plays an important role such as it does in auto theft. To collect insurance, auto owners must report vehicle thefts; thus, almost 100% of auto thefts are reported. As a result, auto theft may represent the reporting practices of the public rather than police screening practices.

Applying a similar logic to how we obtained a processing index for violent crimes, we can develop processing indices that distinguishes jurisdictions in terms of their tendency to process lesser property offenses. In table 5 we have four different processing indices for property crime. We have divided the larger number of crimes (which include the less serious and more screenable ones) by the more serious and less screenable property offenses. When we look at the index in the first column, property crime divided by break and enter, it appears that Alberta, the Yukon and Nova Scotia process more while Quebec processes less. There is no necessary logic that violent crimes and property crimes show similar processing variations; heavy screening practices by the police seem to characterize Quebec for both types of crimes while the Northwest Territories are low on the property index but high on the violence index.

It is also interesting to note that the Yukon and N.W.T. exhibit somewhat different patterns. These areas have been noted for relatively high crime rates, but the processing index in the first column suggests that the Yukon resembles Alberta more than the Northwest Territories in that it processes similar proportions of B and Es and property offenses. The data for the Northwest Territories are harder to interpret. The processing index is lower than Quebec's, but the rate for B and Es in Table 4 is high. Does something lead to an inflation of B and Es?

When it comes to crimes of violence, we noted in Table 3 that *both* the Yukon and the N. W. T. differed from the lower provinces. The assault/robbery indices in Table 3 suggest that the territories process a larger number of minor

TABLE 5

1985 Selected Processing Indices for Property Crime
by Provinces

Province	PC/ B & E's	Theft/ B & E's	Stolen Prop/ B & E's	Theft/ Auto
Newfoundland	4.2	1.98	0.07	11.22
Prince Edward Island	3.8	1.63	0.02	6.47
Nova Scotia	4.6	2.01	0.04	10.45
New Brunswick	3.6	1.36	0.05	6.12
Quebec	3.1	0.84	0.02	3.30
Ontario	4.4	1.71	0.11	7.98
Manitoba	4.3	1.76	0.07	6.91
Saskatchwan	3.9	1.41	0.08	6.88
Alberta	4.8	1.88	0.11	6.46
British Columbia	4.1	1.62	0.06	8.07
Yukon	4.7	1.74	0.11	5.96
Northwest Territories	2.6	0.83	0.04	3.55

assaults than the rest of Canada. Newfoundland also displays a high processing index, but is assaultive *behaviour* really as high as in Nova Scotia? We note that the robbery rates in the northern territories are less than in Quebec, British Columbia and Manitoba but the notion of "violent crime" and robbery may take on a different meaning in northern Canada. For property crimes (Table 4) the pattern is somewhat different. We might group the Yukon with the western provinces, but the N.W.T. has a very high B & E rate. The general point, which is obvious from these tables, is that talking about a *total* crime rate, for either property or violent crimes, obscures much useful information which can be obtained by looking at the specific category of offenses.

Property crime divided by break and enter may not produce the best indicator of how the police tend to screen property offenses. Therefore, it may be useful to employ other indices to reflect how the police may screen other property crimes. In columns 2, 3 and 4 of Table 5 we have presented the ratios for theft divided by B and Es, stolen goods divided by B and Es, and theft divided by auto theft. These columns follow the same logic as column 1 except that instead of total property crime, we used either theft under $200 or stolen property. That is, the numerator includes a crime that can be screened from the system more easily while the denominator includes offenses that are more difficult to screen.

For the second and fourth column we have used theft under $200 in the numerator. While it is not clear if auto theft is as serious as B & Es, it may be harder to screen out of the system. Thus, it may lend itself to the logic of a "processing index." In the third column, we used stolen property over B & E assuming that stolen property might be a more "screenable" offense. In addition, it is possible that a jurisdiction such as Quebec might use stolen property charges in place of theft over $200.

The second column in Table 5 shows that Quebec and the Northwest Territories seem to screen out more theft cases than the other provinces. Their indices of 0.84 and 0.83 gives the impression that B & E is more common than theft. According to most policemen, petty theft is clearly a more common and less serious crime than B & E; thus we suggest that theft rates which are lower than B & E rates are more likely to reflect police strategies than criminal or delinquent behaviour. It is also possible that provinces such as Alberta, Ontario and Nova Scotia lay multiple charges more frequently. However, this practice may influence court statistics rather than police statistics. In other words, these

data do not tell us if more *individuals* are screened from the system or if fewer charges are processed through the system. Law enforcement organizations in these various jurisdictions, however, with local knowledge might understand the dynamics influencing these data.

Normally, one would anticipate that the Yukon and the Northwest Territories would have similar patterns, but all four indices in Table 5 are somewhat different for these northern areas. The Yukon tends to be more like those provinces with a moderately high processing indices, such as Alberta, while the N.W.T. tends to resemble Quebec with its lower indices on property crime. Perhaps we should view these two northern areas as being more unique instead of making the same generalization for both territories when it comes to their handling or property crimes.

In column 3 of Table 5 possession of stolen property forms the numerator of the index. This charge is not used extensively and may rarely be used by itself. Again, Quebec is on the low end of the continuum. Ontario has an index over five times as large when compared to Quebec. Does this indicate that Ontario police lay a charge for the possession of stolen property in addition to charges for theft or break and enter? If so, this might influence court statistics but not police statistics. Or do the Ontario police simply use stolen property charges for minor offenses when the Quebec police would screen the case? Again, local personnel might make sense out of these data, but outsiders could err badly in trying to make interpretations.

In column 4, we have used theft as the numerator and auto theft as the denominator. We now see that the east-west pattern is no longer evident. Nova Scotia and Newfoundland now have the highest processing index while the rates for both of the territories are low. If we look at the rate of auto theft in Newfoundland and Nova Scotia, we find that the rate is about four times smaller than the rate for the Northwest Territories. Since auto theft permits less police discretion, it can be argued that the low auto theft rate leads to an inflated processing index in Nova Scotia and Newfoundland. Without local knowledge these ratios may make little sense.

Using Processing Indices to Estimate More Meaningful Crime Rates

We have argued that the crime rates which are the most readily available are those for total violent or total property crime. Unfortunately, these

TABLE 6

Violent Crime Rates - 1986
Adjusted Using the Assault/Robbery Processing Index (1985)

Province	1986 Violent Crime	1986 Adjusted Violent Crime*
Newfoundland	636	10.9
Prince Edward Island	494	11.6
Nova Scotia	621	35.5
New Brunswick	625	27.1
Quebec	549	262.7
Ontario	794	69.2
Manitoba	1,038	124.5
Saskatchewan	877	70.7
Alberta	908	78.1
British Columbia	1,239	134.7
Yukon	3,376	57.4
Northwest Territories	3,955	72.7

* Adjusted rate was calculated by taking the 1986 violent crime rate - 1985 Assault/Robbery Processing Index (column 3 of the table 3)

Source: Statistics Canada, Uniform Crime Reporting Statistics. Statistical Highlights 1986, p. 21-32.

are unreliable because of the way minor offenses are processed in different areas. Could we "adjust" these crime rates so that they are somewhat more meaningful? By using a processing index for 1985, we will try to "correct" the 1986 data so that it is more meaningful. We realize that many other system characteristics, such as the tendency to lay single or multiple charges, will influence these data; but the processing index may be a significant correction in the sense that it adjusts somewhat for the tendency to screen out minor offenders.

For violent crimes we will use the index developed in the last column of Table 3. One major assumption in this method is that the police will continue to screen violent crimes in the same manner as in the previous year. By dividing the 1986 violent crime rate by the processing index in Table 3, we "adjust" the 1986 rate. That is, we reduce the impact of the way minor assaults are processed. Using the "adjusted" rates in Table 6, we find that Quebec now has the highest rate with the territories having moderate rates. This higher rate for Quebec is expected since Quebec appears to be screening out more minor cases compared to the rest of the country. The Yukon and N.W.T. appear to have rates more like the western provinces once we controlled for screening practices by using the processing index. With the exception of Quebec, we still see evidence of an east-west differential in violent crime rates with the western provinces having higher rates than the Atlantic provinces. Once we control for screening practices, Quebec, British Columbia and Manitoba appear to have high incidences of violent crime and the Maritimes low rates. The adjusted rate may give a better indication of the violent crime rates in terms of those cases that the police believe serious enough to warrant processing through the system. At the same time, robbery may reflect only a certain aspect of violent crime. A better index might include other measures of serious violent crime in the denominator.

Using the same logic as we did for the adjusted violent crime rate, we can obtain a corrected rate for property crime in 1986 (see Table 7, column 2) by dividing this figure by the processing index (property crime/break and enter) in column 1 of Table 5. Again we note that this corrected rate still reflects somewhat an east-west differential with the exception of Quebec, which has a corrected property crime rate for 1986 lower than Quebec. Instead of having somewhat low rates for property crimes, Quebec now displays a relatively high adjusted rate for property crimes. The Northwest Territories still have the highest adjusted property crime rate followed by British Columbia and the

TABLE 7

Property Crime Rates (1986)
Adjusted Using Processing Indices (1985)

Province	1986 Property Crime*	1986 Adjusted Rate (1986 PC Rate - Col 1 of Table 5)	1986 Adjusted Rate (1986 PC Rate - Col. 2 of Table 5)
Newfoundland	2,925	696.4	1,477.3
Prince Edward Island	3,023	795.5	1,854.6
Nova Scotia	4,425	962.0	2,201.5
New Brunswick	3,616	1,004.4	2,658.8
Quebec	4,857	1,566.8	5,782.1
Ontario	5,209	1,183.9	3,046.2
Manitoba	7,619	1,771.9	4,329.0
Saskatchewan	7,053	1,808.5	5,002.1
Alberta	6,265	1,305.2	3,332.4
British Columbia	8,631	2,105.1	5,328.8
Yukon	9,358	1,991.1	5,378.2
Northwest Territories	8,387	3,225.8	10,104.82

Source: *Statistics Canada, Uniform Crime Reporting Statistics Statistical Highlights 1986, p. 21-32.

Yukon. In fact, the Yukon is very similar to British Columbia, Saskatchewan and Manitoba.

The processing index in column 2 of table 7 uses total property crimes in the numerator. Using theft in the numerator instead of total property crimes might be a clearer indicator of the handling of minor crimes versus serious ones. Column 3 of table 7 uses this indicator developed in column 2 of table 5. Column 3 of table 7 identifies the Northwest Territories as having the highest adjusted rate followed by Quebec, Yukon, British Columbia and Saskatchewan. The Maritimes still have low rates, but Quebec now appears to be similar to the Yukon and British Columbia.

Comparing our two adjusted property crime rates in columns 2 and 3 of table 7 we find that the two adjusted rates are naturally similar since theft contributes a lot to total property crime. With the exception of Quebec, which exhibits rates similar to the western provinces, the East–West differential in property crime rates is still evident. Which of the two processing indices is better? Are either of the adjusted rates an improvement over total rates? It is difficult to say because of the many factors that influence official crime statistics. However, either processing index may reduce the impact of differential practices of the police in the handling of minor property offenses.

We will not present tables using the other two processing indices developed in Table 5, nor do we claim any particular merit for any of them. The general idea is to make data more comparable by taking into account some of the characteristics of the system, in this case, screening practices.

Conclusion

To be useful an index should be influenced by relatively few factors. For example, if the processing indices proposed here reflect *only* screening practices of police forces then it becomes a useful tool for making comparisons regarding those types of activities. However, there may be many other factors which influence these indices. The processing index may be a measure of how much a system screens minor crimes, but it could also be influenced by the way certain crimes are categorized. In addition, communities within a province will differ, and we should anticipate diffences among city and provincial police forces as well as among RCMP detachments.

These processing indices would probably be most useful to local police units rather than to those trying to make analyses at the national level. While outsiders might guess at some of the factors which would give rise to these indices, local knowledge would be necessary before one could make an intelligent interpretation. When one makes comparisons among jurisdictions which contain a single police force, such as Edmonton and Calgary, or the various police departments in the Vancouver area, the line policemen might be able to make sense of these data. Neighboring police units typically compare notes and exchange ideas.

If these indices do permit comparisons across jurisdictions, the next question might be: what are the consequences? For example, if Quebec police screen out more juveniles who commit petty theft, do they have closer ties with families who might deal with juveniles more effectively than the formal justice system? Do they spend more time building community ties and less time processing cases? The processing index, which is easy to calculate, might become a simple analytical tool for local police administrators to use if they were developing new policies. For example, if Calgary decided to screen more juveniles or send more to alternative measures, it should lead to lower processing indices.

Broader comparisons can also be made if we learn that such processing indices have a reasonably consistent interpretation across the nation. Then they could be used as correction factors to control certain system characteristics. Once "corrected" the remaining crime rates become a better indicator of actual criminal behaviour.

It is important not to assess "goodness" or "badness" of system characteristics prematurely. We are aware of tremendous variety in the way our criminal justice systems handle cases. Each jurisdiction tends to justify its own practices, but frequently one system has developed techniques that might be worth sharing. The use of these indices might be helpful in avoiding the present silly interpretations that are given to our current crime statistics. The misleading articles that appear so frequently in the newspapers may interfere with intelligent policy initiatives at the local level. Processing indices may not give us an accurate picture of crime, but they may provide some insights into one aspect of the way police units process certain types of cases.

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